

### Abstract of the Disclosure

The present invention provides a microstrip patch antenna and array antenna using dielectric superstrate in order to enhance the antenna gain by stacking radiating patches and dielectric layers. The microstrip patch antenna using a dielectric superstrate for having high gain and wide bandwidth, includes: a lower patch antenna layer having a dielectric layer and a ground plane for radiating energy by exciting current by a feedline; a upper patch antenna layer having dielectric film electromagnetically coupled by the lower radiating patch; a foam layer for distancing the upper patch antenna layer from the lower patch antenna layer; and a dielectric superstrate located by being predeteremined distant from the upper patch antenna layer.